

**SAW Filter 2441.80MHz**  
**Part No: MP08769**

**Model: TA0223B**  
**Rev. No: 1**

**A. MAXIMUM RATING:**

**Electrostatic Sensitive Device (ESD)**

1. Input Power Level: 10dBm
2. DC voltage: 0V
3. Operating Temperature: -40°C to +85°C
4. Storage Temperature: -40°C to +85°C

**B. ELECTRICAL CHARACTERISTICS:**

Item	Min.	Typ.	Max.
Center frequency Fc (dB)	-	2441.8	-
Insertion loss (2400 ~ 2483.5MHz) IL (dB)	-	2.1	5.0
Amplitude ripple (2400 ~ 2483.5MHz) (dB)	-	0.9	3.0
Attenuation (Reference level from 0dB)			
D.C. ~ 1700MHz (dB)	20.0	29.0	-
1700 ~ 2200MHz (dB)	25.0	30.0	-
2700 ~ 3100MHz (dB)	30.0	40.0	-
3100 ~ 4000MHz (dB)	20.0	29.0	-
4000 ~ 5000MHz (dB)	10.0	20.0	-
VSWR (2400 ~ 2483.5MHz)	-	1.7	2.6
Source impedance Z <sub>S</sub> (Ω)	-	50	-
Load impedance Z <sub>L</sub> (Ω)	-	50	-

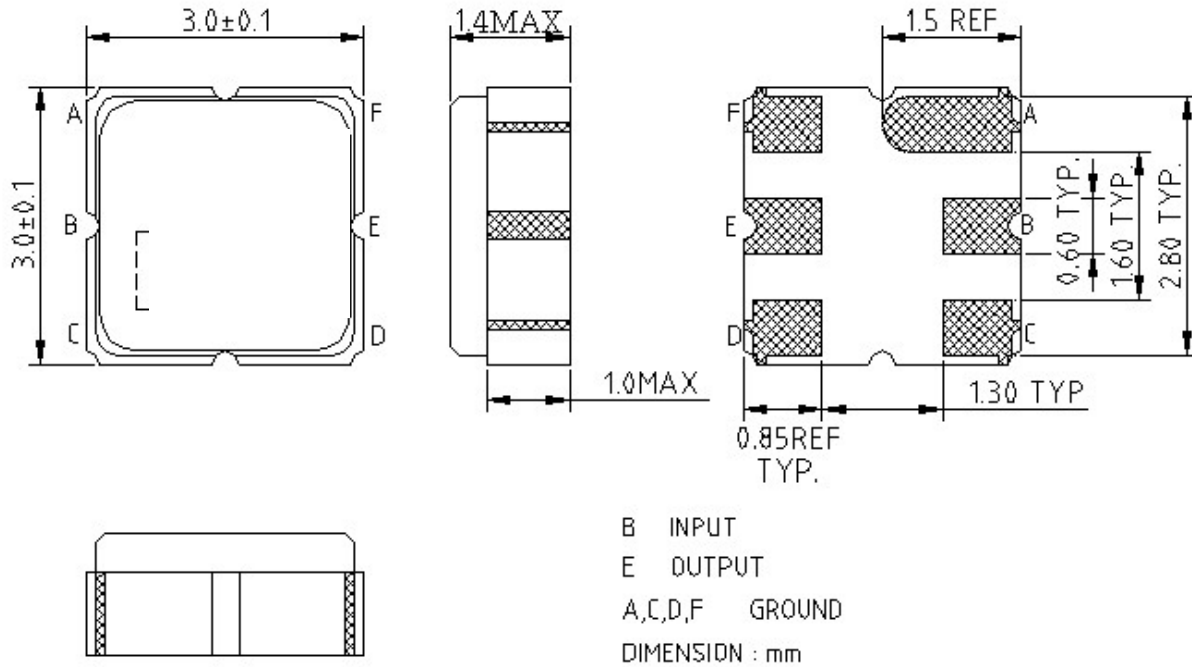
**Notes:**

1. The standard definitions is in JIS C 6703
2. Product Weight: 40.69mg

**SAW Filter 2441.80MHz**  
**Part No: MP08769**

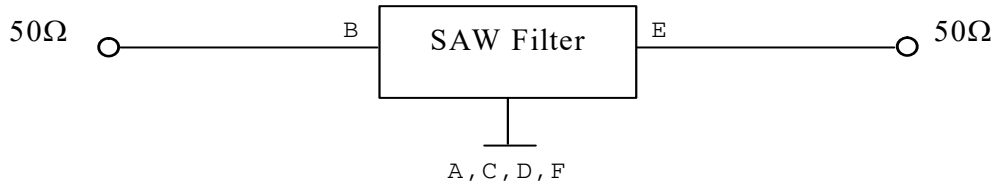
**Model: TA0223B**  
**Rev. No: 1**

**C. OUTLINE DRAWING:**

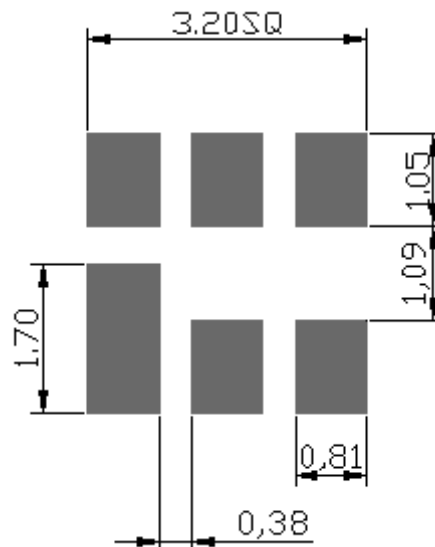


**D. MEASUREMENT CIRCUIT:**

HP Network analyzer



**E. PCB FOOTPRINT:**

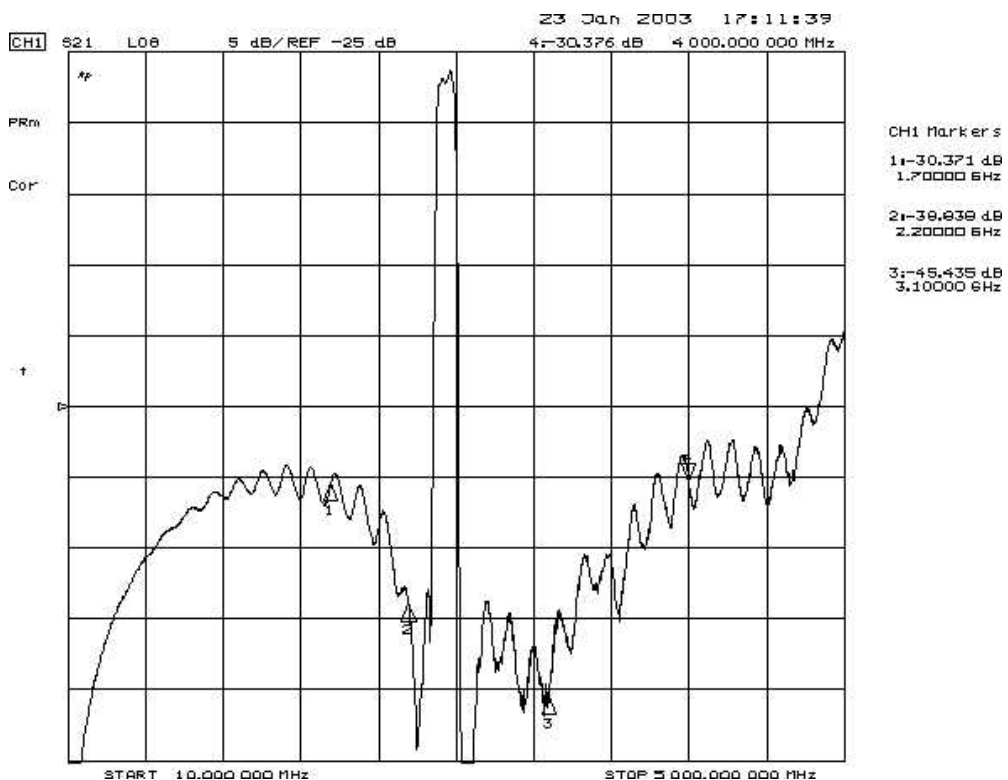
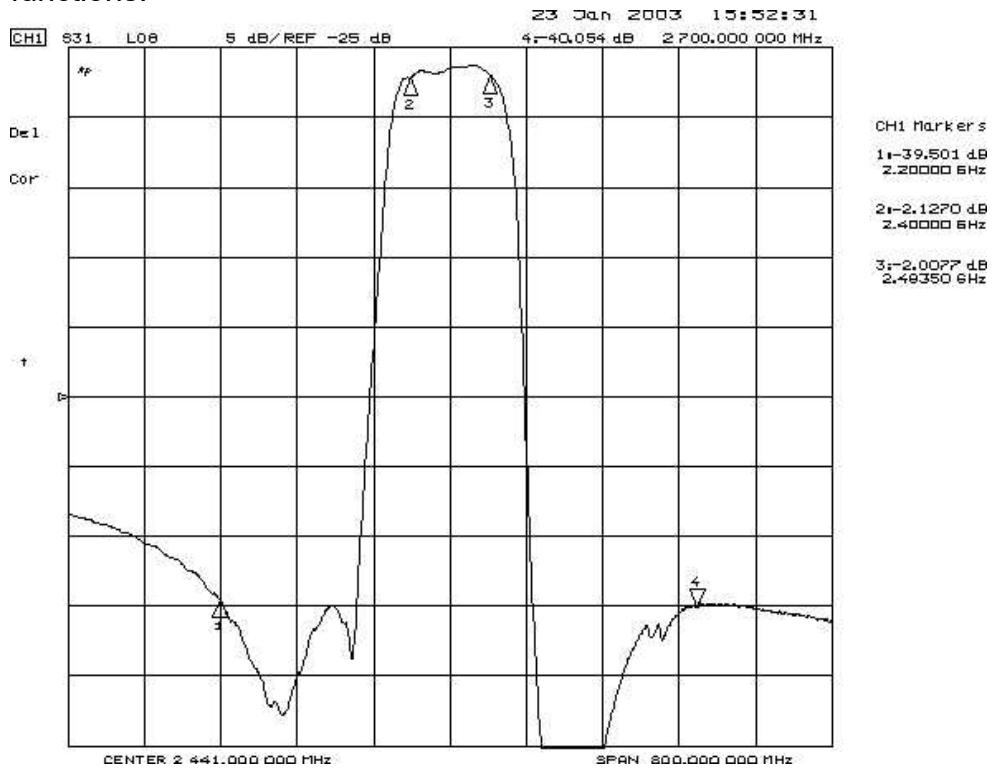


**SAW Filter 2441.80MHz**  
**Part No: MP08769**

**Model: TA0223B**  
**Rev. No: 1**

**F. FREQUENCY CHARACTERISTICS:**

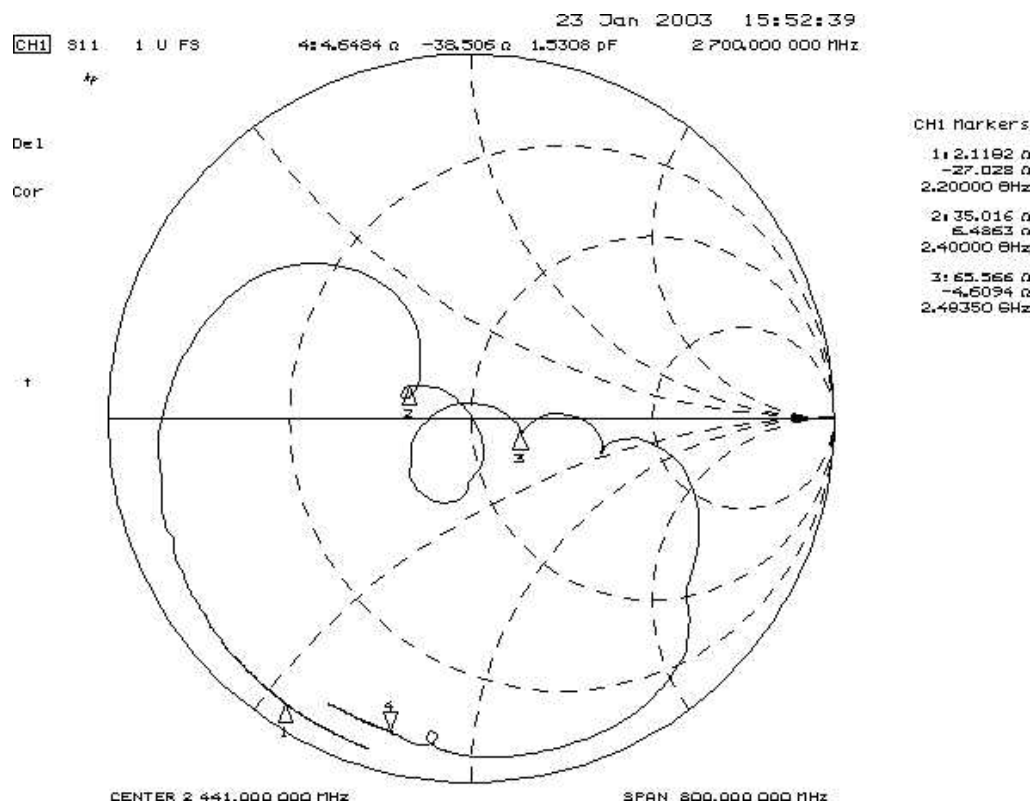
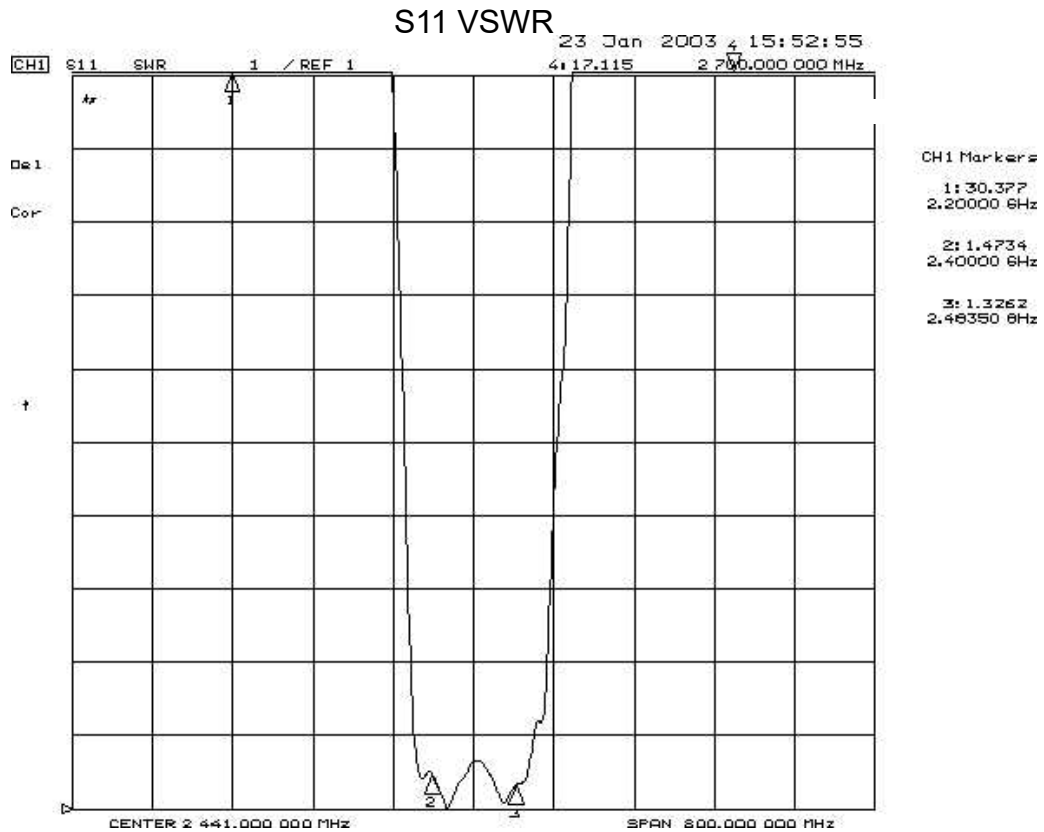
1. Transfer functions:



**SAW Filter 2441.80MHz**  
**Part No: MP08769**

**Model: TA0223B**  
**Rev. No: 1**

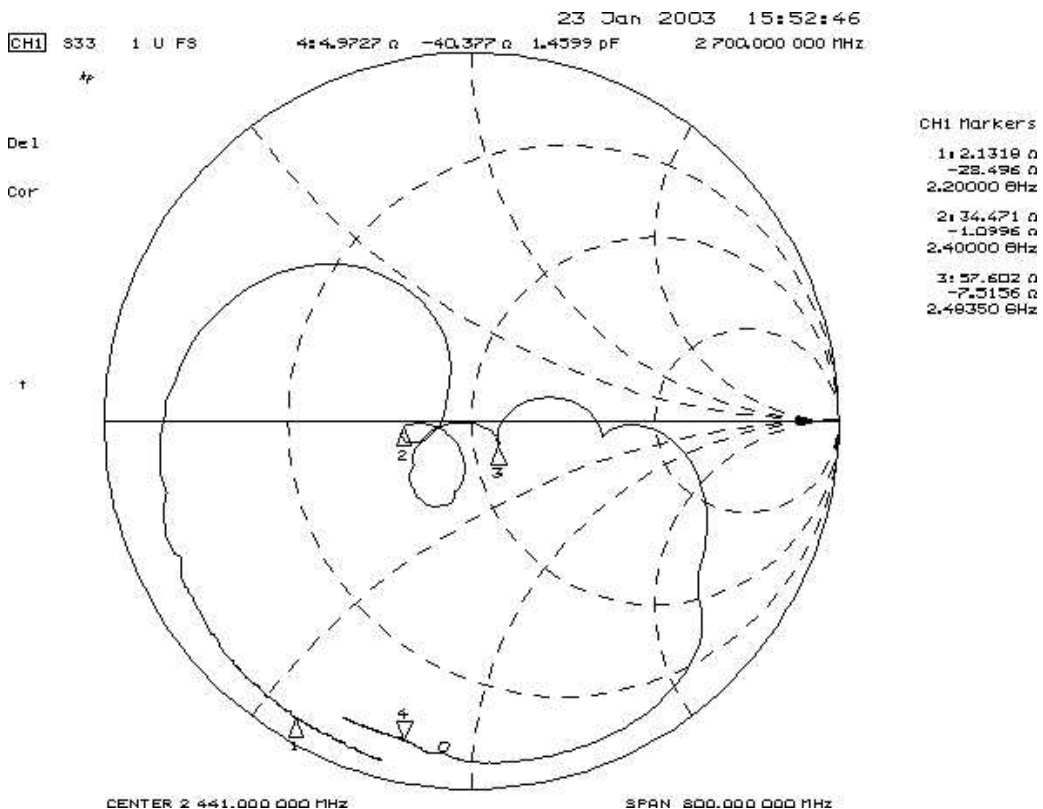
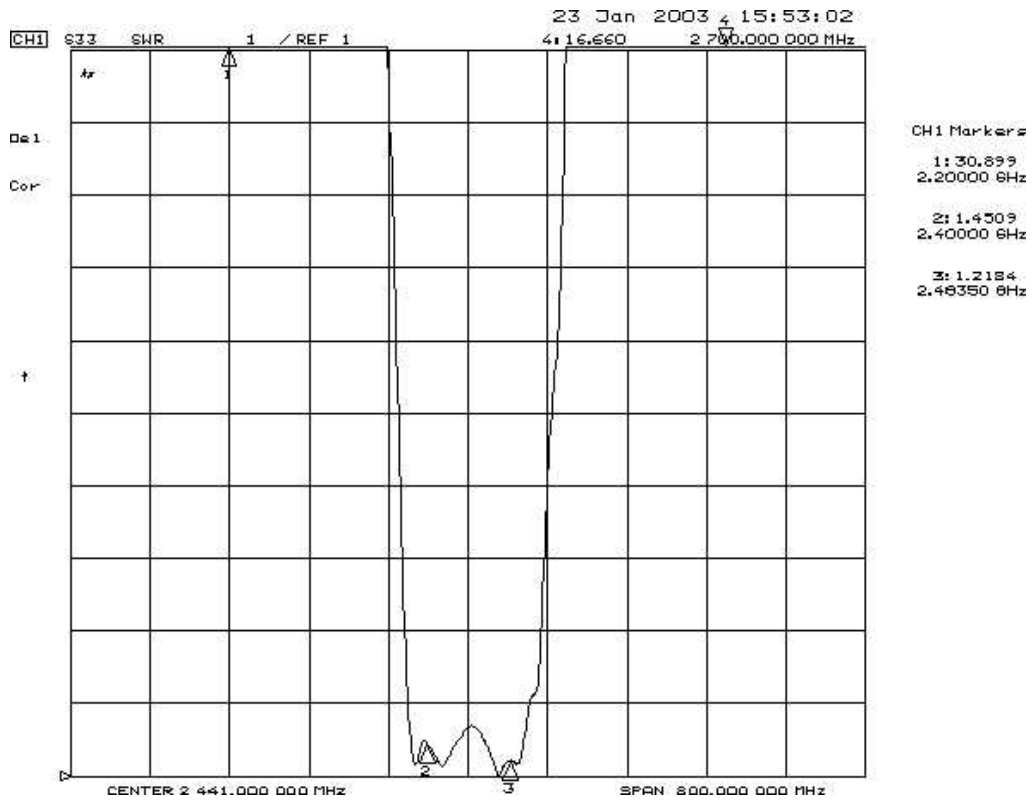
2. Reflection Functions:



**SAW Filter 2441.80MHz**  
**Part No: MP08769**

**Model: TA0223B**  
**Rev. No: 1**

S22 VSWR

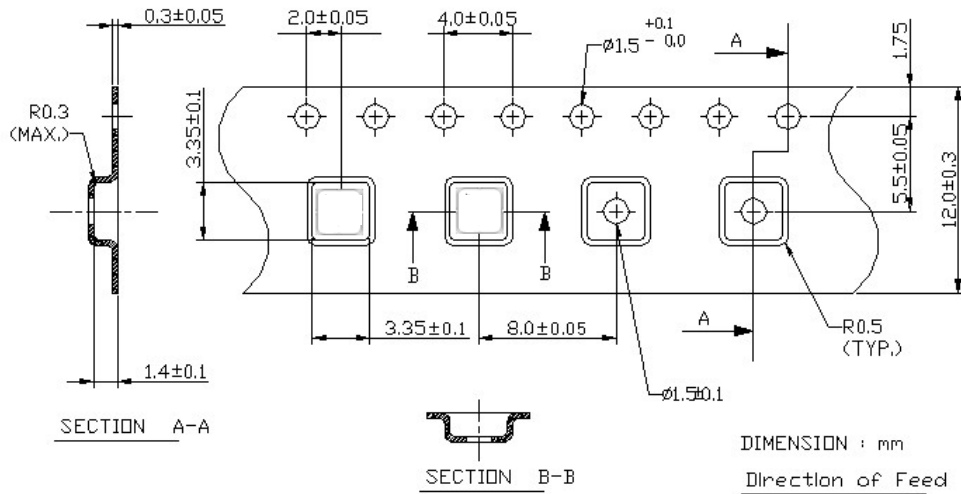


**SAW Filter 2441.80MHz**  
**Part No: MP08769**

**Model: TA0223B**  
**Rev. No: 1**

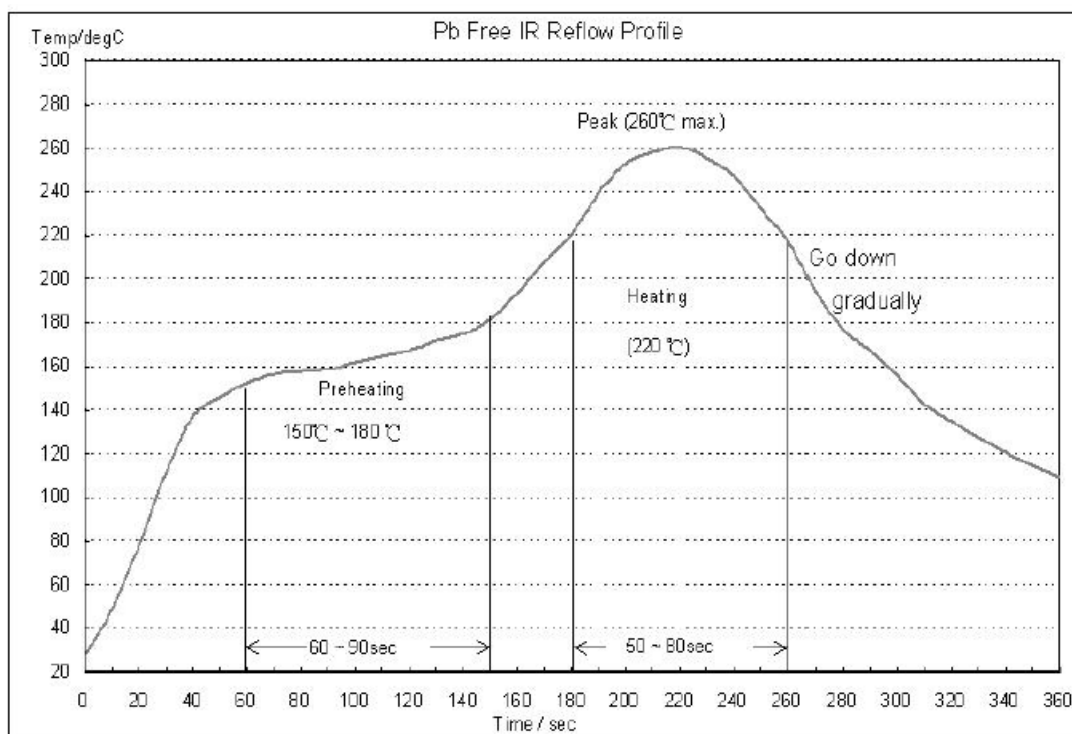
**G. PACKING:**

**Tape Dimensions**



**H. RECOMMENDED REFLOW PROFILE:**

1. Preheating shall be fixed at 150~180°C for 60~90 seconds.
2. Ascending time to preheating temperature 150°C shall be 30 seconds min.
3. Heating shall be fixed at 220°C for 50~80 seconds and at 245~260°C peak (min. 10 sec).
4. Time: 2 times.



**SAW Filter 2441.80MHz**

**Model: TA0223B**

**Part No: MP08769**

**Rev. No: 1**

**I. RELIABILITY SPECIFICATIONS:**

Test name	Test process / method	Reference standard
<b>Mechanical characteristics</b>		
resistance to Soldering heat (IR reflow)	Temp./ Duration : 275°C /10sec Total time : 4 min.(IR-reflow)	EIAJED-4701 -300(301)M (II)
Vibration	Total peak amplitude : 1.5mm Vibration frequency : 10 to 55 Hz Sweep period : 1.0 minute Vibration directions : 3 mutually perpendicular Duration : 2 hr / direc.	MIL-STD 202F method 201A
Shock ( Drop test )	Random free drops 10 times from height of 1.0 meter onto concrete floor.( no load )	JIS C6703 7.3.2
Mechanical Shock	directions : 3 impacts per axis Acceleration : 3000g's, +20/-0 % Duration : 0.3 ms (total 18 shocks) Waveform : Half-sine	MIL-STD 202F method 213C
Solderability	Solder Temperature: 245±5°C Duration time: 5±0.5 seconds.	MIL-STD 883 method 2003
<b>Environmental characteristics</b>		
Thermal Shock	Heat cycle conditions -65 °C (30min) ← → 150 °C (30min) * cycle time : 10 times	MIL-STD 883D method 1010.7
Humidity test	Temperature : 70 ± 2 °C Relative humidity : 90~95% Duration : 96 hours	MIL-STD 202F method 103B
Dry heat ( Aging test )	Temperature : 125 ± 2 °C Duration : 250 hours	MIL-STD 202F method 108A condition C
Cold resistance	Temperature : -40 ± 3 °C Duration : 96 hours	JIS C6703 7.4.1
Temperature Characteristics	Filter shall be measured within -40°C to +85°C temperature range.( -40, 85°C ) (by model)	JIS C 6701
PCT test	Pressure: 2.06kg/cm <sup>2</sup> (2.03*10 <sup>5</sup> pa) Temperature : 121 ± 2 °C Relative humidity : 100±10% Duration : 4 hours	EIAJED-4701-3 B-123A